

LABOR MARKET ANALYSIS

FOR PROGRAM RECOMMENDATION



C·O·E

CENTERS OF EXCELLENCE
FOR LABOR MARKET RESEARCH

APPLIED PHOTOGRAPHY IN THE GREATER SACRAMENTO REGION

North (Greater Sacramento)
Center of Excellence

MARCH 2022

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SUMMARY

The North (Greater Sacramento) of Excellence for Labor Market Research prepared this report to provide a labor market analysis of educational supply and occupational demand for middle-skilled career pathways in the North (Greater Sacramento) subregion. This report aims to determine if demand in the local labor market is unmet by the supply from existing community college programs and other postsecondary training providers.

This report primarily focuses on training that leads to jobs in middle-skilled occupations - jobs that typically require education beyond a high school diploma but less than a Bachelor's degree - but may include higher-skilled occupations for training pathways that lead to a bachelor's degree. Lowered skilled occupations are rarely considered in this type of analysis due to the lessened barriers for entry-level work, such as no formal education and on-the-job training requirements.

Key findings include:

- The North (Greater Sacramento) subregion held 1,180 photographer jobs in 2020. Jobs are projected to increase by 16% over the next five years, adding 193 new jobs to the subregion by 2025.
- More than 80% of North (Greater Sacramento) photographers are self-employed, and all job growth of this occupation is attributed to self-employed photographers.
- Over the next five years, photographers are projected to have 160 annual openings in the North (Greater Sacramento) subregion.
- Analysis of wage data shows that self-employed photographers have a wider variation in their earnings than employed photographers.
- Awards data analysis shows that North (Greater Sacramento) training providers conferred an average of 62 awards (certificates and associate degrees) in Applied Photography programs over the last three academic years.

Recommendations include:

- The North (Greater Sacramento) Center of Excellence recommends that community colleges exercise caution in expanding or creating new applied photography programs.

INTRODUCTION

The North (Greater Sacramento) Center of Excellence (COE) was asked to provide labor market information for a proposed program at a regional community college. This report focuses on the following Standard Occupational Classification (SOC) occupations and codes:

- These middle-skill occupations require more education and training beyond a high school diploma but less than a four-year degree:
 - Photographers (27-4021)

A review of related programs revealed the following Taxonomy of Programs (TOP) title(s) and code(s) are appropriate for inclusion in this report:

- Applied Photography (1012.00)

The corresponding Classification of Instructional Program (CIP) title(s) and code(s) are:

- Commercial Photography (50.0406)
- Photography (50.0506)

OCCUPATIONAL DEMAND

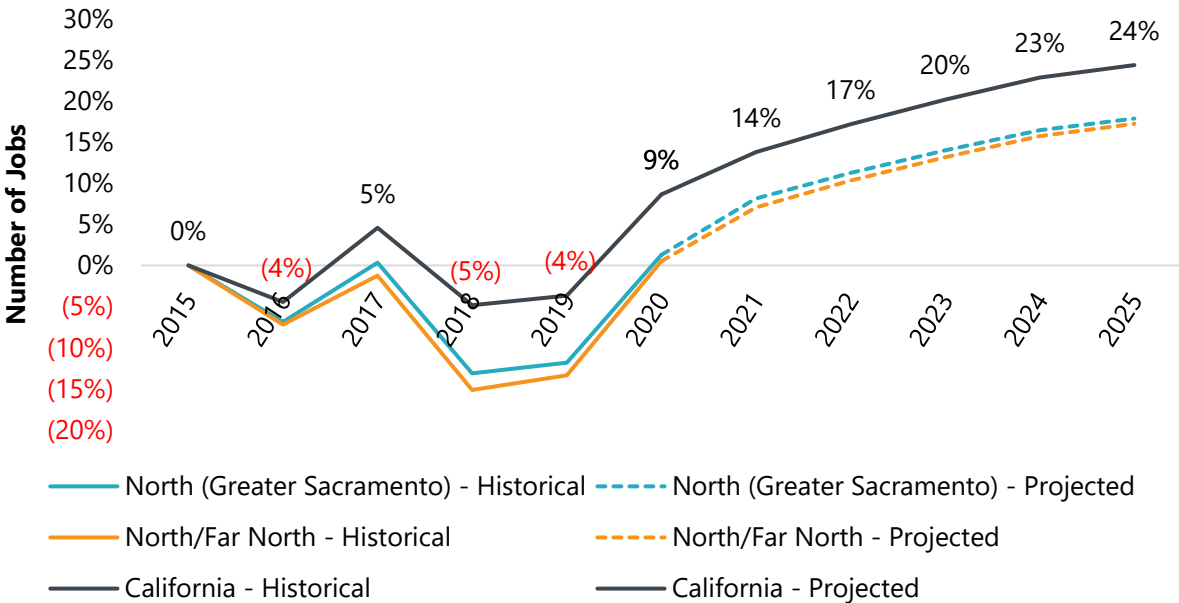
Exhibit 1 summarizes the five-year projected job growth for middle-skill and high-skill occupations in the North, North/Far North, and California.

Exhibit 1. Employment and projected demand, 2020-2025

Occupation	2020 Jobs	2025 Jobs	2020-2025 Change	2020-2025 % Change	2020-2025 Annual Openings
Photographers	1,180	1,373	193	16%	160
North (Greater Sacramento)	1,180	1,373	193	16%	160
Photographers	1,466	1,709	244	17%	198
North/Far North	1,466	1,709	244	17%	198
Photographers	25,019	28,645	3,626	14%	3,248
California	25,019	28,645	3,626	14%	3,248

Exhibit 2 compares the percent change in jobs between 2015 through 2020 and the projected changes through 2025. The rate of change is indexed to the total number of jobs in 2015.

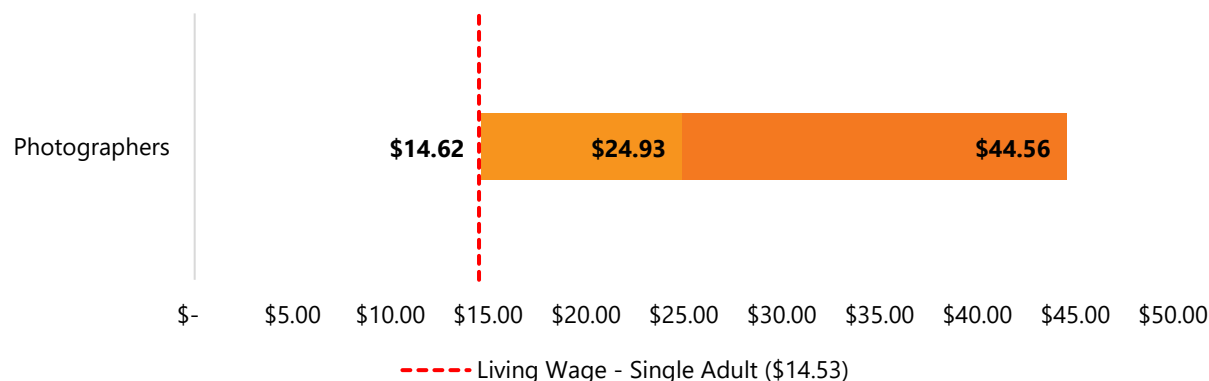
Exhibit 2. Changes in employment, 2015-2025



WAGES

Exhibit 3 compares the entry-level, median, and experienced wages for the selected occupations to the North (Greater Sacramento) living wage for a single adult - \$14.53 per hour.¹

Exhibit 3. Comparison of wages by occupation, 2020



JOB POSTINGS

This section analyzes recent data from online job postings (real-time LMI). Online job postings may provide additional insight into recent changes in the labor market that are not captured by historical trends.

The North COE identified 342 online job postings for the selected occupations in the Greater Sacramento subregion. Job postings data comes from Burning Glass Labor Insights and represents new listings posted online within the last year, from March 1, 2021, to February 28, 2022.

Occupations and Job Titles

Exhibit 4 details the number of online job postings for the selected occupations.

Exhibit 4. Number of job postings by occupation

Occupation	Job Postings	Share of Job Postings
Photographers	342	100%
Total Job Postings	342	100%

¹ Living wage is defined as the level of income a single adult with no children must earn to meet basic needs, including food, housing, transportation, healthcare, taxes, and other miscellaneous basic needs. The 25th-percentile and 75th-percentile hourly wages are used as proxy for entry-level and experienced-level wages.

Exhibit 5 shows the top 10 job titles with the most job postings and the share. All job postings included a job title.

Exhibit 5. Top jobs titles

Job Title	Job Postings	Share of Job Postings
Photographer	42	12%
Real Estate Photographer	12	4%
Wedding Photographer	10	3%
Newborn Photographer	8	2%
Photographer Freelance	7	2%
Dealership Porter/Photographer	6	2%
Photographer - Photos	6	2%
Photographer/Sales Associate	6	2%
Automotive Photographer	5	1%
Freelance Photographer	5	1%

Employers

Exhibit 6 shows the top 10 employers with the most job postings for the selected occupations. Twenty-four percent (n = 81) of job postings did not include an employer.

Exhibit 6. Employers with the most job postings

Employer	Job Postings	Share of Job Postings
Pro Motionpix, Llc	26	8%
Lifetouch	10	3%
Cherry Hill Programs	8	2%
Sweet Me Photography	7	2%
Kapturly	7	2%

Employer	Job Postings	Share of Job Postings
CBS Broadcasting	7	2%
Shutterfly	6	2%
Univision Communications Incorporated	5	1%
Nationwide Studios Incorporated	5	1%
Life365 Portraits	5	1%

Certifications, Skills, and Experience

Exhibit 7 shows the most relevant certifications requested by employers for the selected occupations. Fifty-eight percent (n = 197) of job postings did not include certification information.

Exhibit 7. Most in-demand certifications

Certification	Job Postings	Share of Job Postings
Driver's License	145	XX%

Exhibit 8 shows the top 10 skills across three categories for the studied occupations: specialized, human-centered, and technical skills.

Exhibit 8. Most in-demand specialized skills

Top 10 Specialized Skills	Top 10 Human-Centered Skills	Top 10 Technical Skills
Photography	Communication Skills	Adobe Photoshop
Customer Service	Editing	Facebook
Videography	Creativity	Adobe Premiere
Sales	Detail-Oriented	Microsoft Excel
Scheduling	Organizational Skills	Microsoft Office
Journalism	Physical Abilities	Adobe InDesign
Social Media	Teamwork / Collaboration	Microsoft Operating Systems

Top 10 Specialized Skills	Top 10 Human-Centered Skills	Top 10 Technical Skills
Adobe Photoshop	Problem Solving	Adobe Acrobat
Facebook	Computer Literacy	Adobe Creative Suite
Retail Industry Knowledge	Energetic	Final Cut Pro

Exhibit 9 shows employers' minimum level of education for job postings for the selected occupations. Sixty-one percent (n = 208) of job postings did not include a preferred education level.

Exhibit 9. Employer-preferred minimum education levels

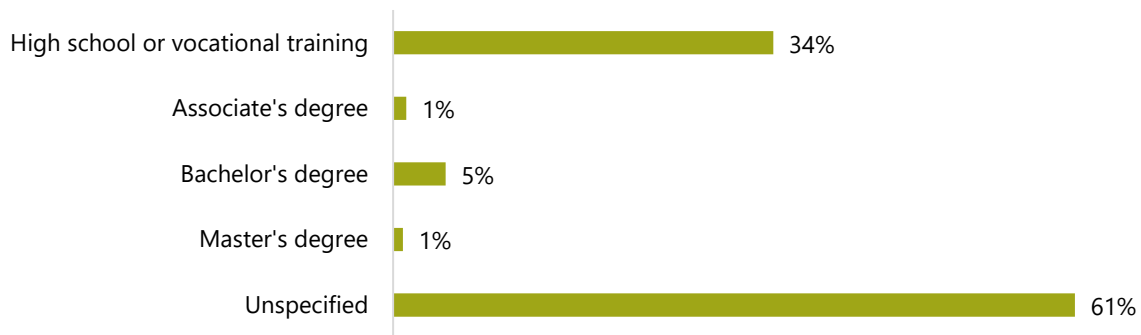
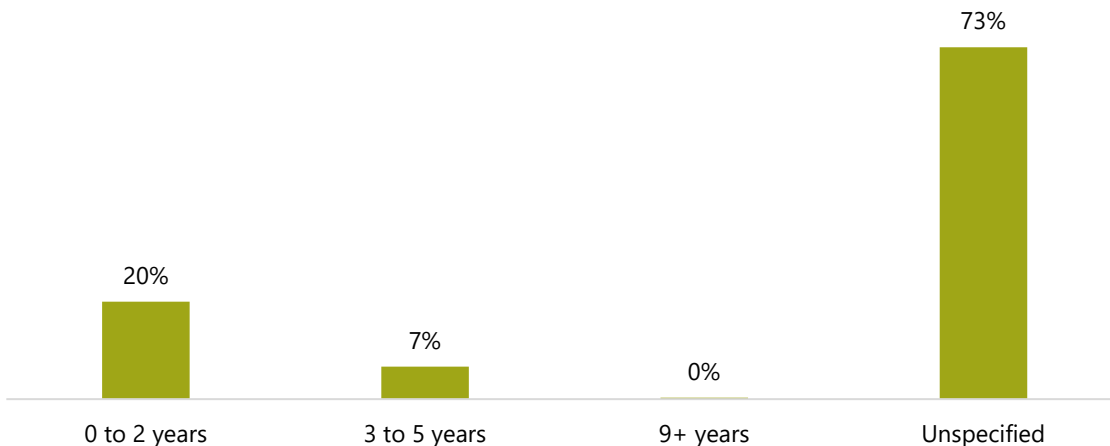


Exhibit 10 shows the experience levels required by employers for job postings for the selected occupations. Seventy-three percent (n = 249) of job postings did not include a preferred experience level.

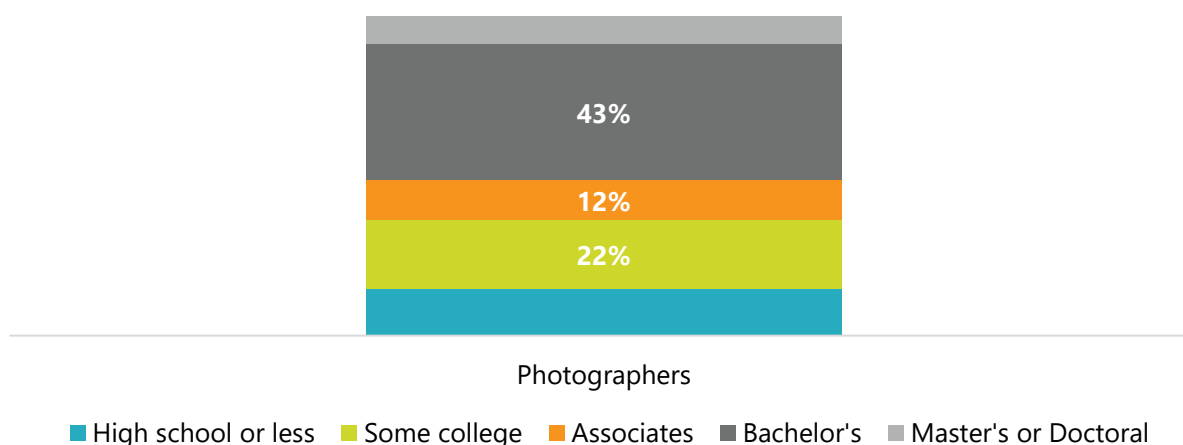
Exhibit 10. Employer-preferred experience levels



EDUCATION AND TRAINING

The U.S. Census Bureau and Bureau of Labor Statistics collected data on education achieved by workers employed in occupations. Exhibit 11 shows the national-level educational attainment of the current workforce in the selected occupations.

Exhibit 11. National worker educational attainment for selected occupations, 2019



The Bureau of Labor Statistics (BLS) uses a system to assign categories for entry-level education, work experience in a related occupation, and typical on-the-job training to each occupation for which the BLS publishes projections data. Exhibit 12 shows the skill level and entry-level job requirements for the selected occupations.

Exhibit 12. Typical education, work experience, and on-the-job training requirements

Occupation	Typical Entry-level Education	Work Experience Required	On-the-job Training Required
Photographers	High school diploma or equivalent	None	Moderate-term on-the-job training

EDUCATIONAL SUPPLY

Educational supply for an occupation can be estimated by analyzing the number of awards issued in related Taxonomy of Programs (TOP) or Classification of Instructional Programs (CIP) codes. Exhibit 13 shows the TOP and CIP codes for educational programs related to the selected occupations.

Exhibit 13. TOP and CIP codes for training programs related to the selected occupations

TOP Programs and Codes	Aligned CIP Programs and Codes
Applied Photography (1012.00)	Commercial Photography (50.0406) Photography (50.0506)

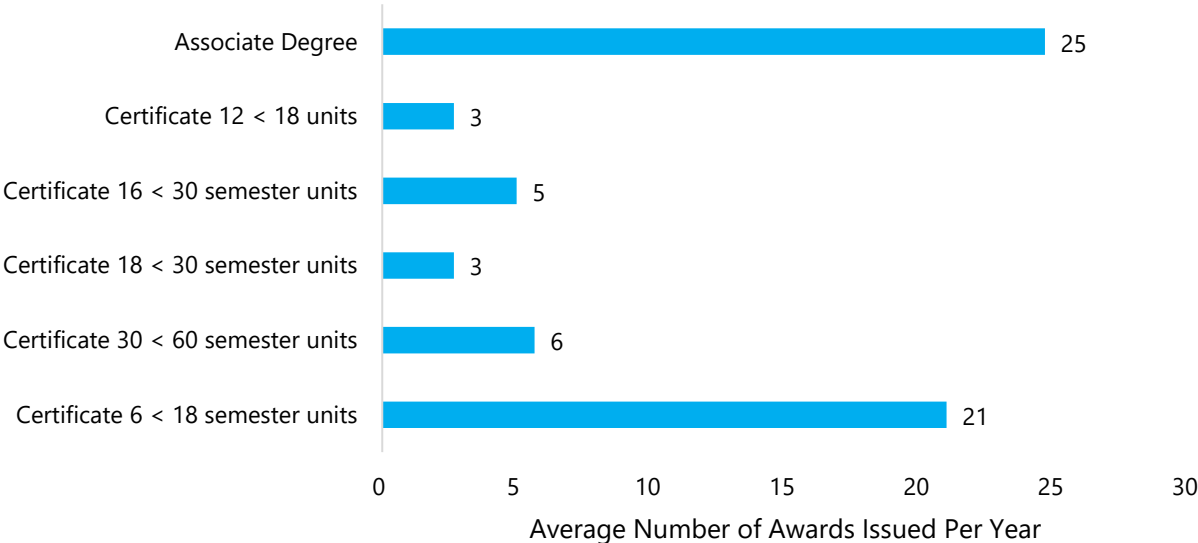
Community College Supply

Exhibits 14 and 15 compare the average number of certificates and degrees conferred in selected community college programs over the last three academic years.

Exhibit 14. Annual average community college awards by program, 2018-19 through 2020-21

Program - TOP Code	College	Annual Awards 2018-19	Annual Awards 2019-20	Annual Awards 2020-21	3-Yr Annual Awards Average
Applied Photography (1012.00)	American River	5	3	0	3
	Cosumnes River	9	17	5	10
	Lake Tahoe	2	0	0	1
	Sacramento City	16	7	9	11
	Sierra	29	34	45	36
	Yuba	0	4	0	1
	Grand Total	61	65	59	62

Exhibit 15. Annual average community college awards by type, 2018-19 through 2020-21



Other Postsecondary Supply

Exhibit 16 compares the average number of degrees non-community college training providers confer in the North (Greater Sacramento) subregion over the last three academic years. Please note that non-community college data lags by one year.

Exhibit 16. Other postsecondary awards by program, 2017-18 through 2019-20

Program - CIP Code	College	Annual Awards 2017-18	Annual Awards 2018-19	Annual Awards 2019-20	3-Yr Annual Awards Average
Photography (50.0506)	CSU Sacramento	17	22	31	23
	Grand Total	17	22	31	23

FINDINGS

- This report focuses on one occupation in the Applied Photography training pathway - Photographers.
- The North (Greater Sacramento) subregion held 1,180 photographer jobs in 2020. These jobs are projected to increase by 16% over the next five years, adding 193 new jobs to the subregion by 2025.
 - In 2020, over 80% of North (Greater Sacramento) photographers were self-employed (Appendix A). The share of self-employed photographers is projected to increase to 84% by 2025.
 - The projected job growth for photographers can be attributed to growing opportunities for self-employed photographers (Appendix A). Between 2020 and 2025, jobs for self-employed photographers are projected to increase by 20%, while jobs for employed photographers are projected to remain relatively stable.
- Jobs for photographers are projected to grow in the North (Greater Sacramento) subregion than in California.
 - Again, this job growth is attributed to growth among self-employed photographers (Appendix A). Between 2020 and 2025, self-employed photographers are projected to add 194 new jobs to the area, while employed photographer jobs are projected to lose one position.
- Over the next five years, photographers are projected to have 160 annual openings in the North (Greater Sacramento) subregion.
 - Approximately 16% of these annual openings (or 26 annual job openings) will be for employed photographers.
- Wage data shows that photographers earn an entry-level hourly wage just above the subregion's living wage of \$14.53 per hour.
 - Hourly wages for photographers differ by employment status (Appendix A). Employed photographers earn an entry-level hourly wage of \$17 per hour, while self-employed photographers reported earning just under \$13 per hour.
 - Although the entry-level hourly wage for self-employed photographers is below the region's living wage, these workers have a wider variation in their earnings. Wages for self-employed photographers range from nearly \$13 per hour to more than \$50 per hour, while employed photographer wages range from \$17 per hour to almost \$30 per hour.

- According to real-time labor market information, there were about 342 online job postings for photographers between March 1, 2021, and February 28, 2021.
- Thirty-four percent of incumbent photographers have educational attainment levels consistent with community college offerings (some college or associate degrees). Another 43% of photographers hold a bachelor's degree.
- Six North (Greater Sacramento) community colleges offer degrees and certificates in applied photography programs. Together, these programs conferred an average of 62 awards (certificates and associate degrees) in applied photography programs over the last three academic years (2018-19 through 2020-21).
- California State University, Sacramento also offers training related to photographers. Between 2017-18 and 2019-20, non-community college training providers conferred an average of 23 bachelor degrees in photography programs over the last three years. Please note that non-community college awards data lags by one year.

RECOMMENDATIONS

- Based on a three-year average of annual awards in North (Greater Sacramento) subregion photography programs and projected yearly openings, the supply gap analysis shows that the region seems to have room for additional training.
 - Together, community colleges and other postsecondary training providers issued an average of 85 awards over the last three years.
 - There are 160 projected annual openings for photographers.
- While there appears to be an undersupply of photographers in Greater Sacramento, this gap is driven by self-employed photographers. In 2020, more than 80% of photographers were self-employed, and this share of employment is projected to increase to 84% by 2025. As a result, achieving a balance between occupational demand and educational supply for an occupation where a significant share of workers are self-employed may not be an appropriate strategy given the highly entrepreneurial nature of this job.
 - According to Strong Workforce Program outcomes, between 2015-16 and 2017-18, 47% of applied photography students reported working in a job closely related to their field of study (Appendix B).
 - According to the LaunchBoard Community College Pipeline, in the 2017-18 academic years, the top five industries of employment for applied photography program completers were: restaurants; executive, legislative, and other general government support; elementary and secondary schools; employment services; and, individual and family services.
- The North (Greater Sacramento) Center of Excellence recommends that community colleges exercise caution in expanding or creating new applied photography programs.

APPENDIX A. SELF-EMPLOYMENT OF PHOTOGRAPHERS

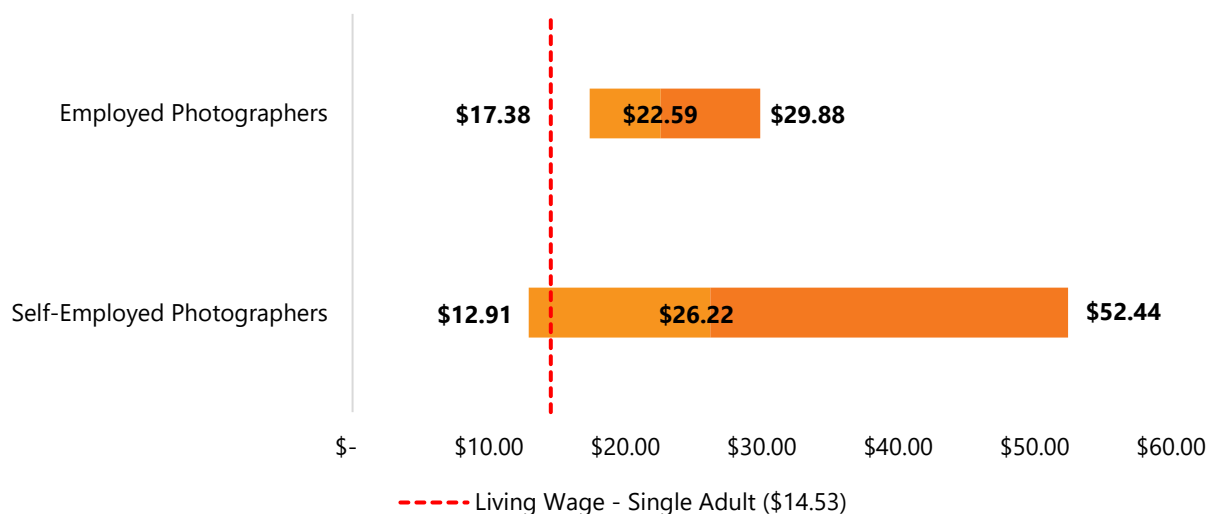
More than 80% of photographers in the North (Greater Sacramento) subregion are self-employed - meaning these workers derive a significant portion of their income through self-directed work activities. Exhibit A1 provides current and projected job estimates for employed and self-employed photographers across the seven-county North (Greater Sacramento) subregion.

Exhibit A1. Occupational demand of employed and self-employed photographers

Worker Type	2020 Jobs	2025 Jobs	2020 - 2025 Change	2020 - 2025 % Change	2020 - 2025 Annual Openings
Employed Photographers	218	217	(1)	0%	26
Self-Employed Photographers	962	1,156	194	20%	134
Total	1,180	1,373	193	16%	160

Exhibit A2 compares the entry-level, median, and experienced wages for employed and self-employed photographers to the North (Greater Sacramento) living wage for a single adult - \$14.53 per hour.

Exhibit A2. Wages of employed and self-employed photographers



APPENDIX B. STRONG WORKFORCE PROGRAM OUTCOMES

Exhibit B1 summarizes Strong Workforce Programs outcomes for Applied Photography programs (TOP 1012.00) in California, the North/Far North region, and the seven-county North (Greater Sacramento) subregion. Data, unless otherwise noted, spans 2015-2016 to the 2019-2020 academic years.

Exhibit B1. Five-Year Average and Percent (or Percent Point) Change in SWP Student Outcomes in Applied Photography (TOP 1012.00), 2015-16 to 2019-20

Metrics	California	North/Far North	North (Greater Sacramento)
Applied Photography (1012.00) Student Enrollments	18,419; 6%	1,496; (20%)	1,445; (21%)
Students Earning 9+ Career Education Units	20%; +2 PP	21%; -2 PP	21%; -1 PP
Students Earning Degree, Certificate, or Attaining Apprenticeship Journey Status	249; 33%	41; 5%	37; 3%
Students Transferring to Four-Year Postsecondary Institution (2015-16 to 2018-19)	832; 47%	82; 54%	81; 61%
Students with a Job Related to Field of Study (2015-16 to 2017-18)	51%; 0 PP	49%; +1 PP	47%; -1 PP
Median Earnings (2015-16 to 2018-19)	\$25,356; 13%	\$27,808; 15%	\$27,803; 14%
Change in Median Earnings (2015-16 to 2018-19)	21%; -1 PP	11.5%; +3 PP	10.5%; +1 PP
Students Attaining Living Wage (2015-16 to 2018-19)	35%; 12%	50%; +5 PP	50%; +5 PP

APPENDIX C. METHODOLOGY AND SOURCES

This report identified Occupations using the Center of Excellence TOP-to-CIP-to-SOC crosswalk and O*Net OnLine. This report's findings were determined using labor market data from the Bureau of Labor Statistics (BLS), U.S. Census Bureau data from Emsi, and jobs posting data from Burning Glass.

Cal-PASS Plus LaunchBoard. California Community Colleges Chancellor's Office.

<https://www.calpassplus.org/LaunchBoard/Home.aspx>.

Emsi 2021.4; QCEW Employees, Non-QCEW Employees, and Self-Employed.

<https://www.economicmodeling.com/>. EMSI occupational employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors).

Educational Attainment for Workers 25 Years and Older by Detailed Occupation, 2016-2017.

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[Us/Divisions/Educational-Services-and-Support/Academic-Affairs/What-we-do/Curriculum-and-Instruction-Unit/Files/TOPmanual6200909corrected12513pdf.aspx](https://www.coecc.net/Us/Divisions/Educational-Services-and-Support/Academic-Affairs/What-we-do/Curriculum-and-Instruction-Unit/Files/TOPmanual6200909corrected12513pdf.aspx)

"TOP-CIP-SOC Crosswalk." Centers of Excellence for Labor Market Research. November 2015 Edition. <http://coecc.net/>

COVID-19 Statement: This report includes employment projection data by EMSI. EMSI's projections are modeled on recorded (historical) employment figures and incorporate several underlying assumptions, including the assumption that the economy during the projection period will be at approximately full employment or potential output. To the extent that a recession or labor shock, such as the economic effects of COVID-19, can cause long-term structural change, they may impact the projections. At this time, it is not possible to quantify the impact of COVID-19 on projections of industry and occupational employment. Other measures such as unemployment rates and monthly industry employment estimates will reflect the most recent information on employment and jobs in the state and, in combination with input from local employers, may help validate current and future employment needs as depicted here.

Important Disclaimer: All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. Efforts have been made to qualify and validate the accuracy of the data and the reported findings; however, neither the Centers of Excellence, COE host District, nor California Community Colleges Chancellor's Office are responsible for applications or decisions made by recipient community colleges or their representatives based upon components or recommendations contained in this study.

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Centers of Excellence for Labor Market Research, Economic and
Workforce Development Program



CENTERS OF EXCELLENCE
FOR LABOR MARKET RESEARCH

FOR MORE INFORMATION,
PLEASE CONTACT:

Ebony J. Benzing, Research
Manager

North (Greater Sacramento)
Center of Excellence

Ebony.Benzing@losrios.edu